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REMARKS

In the Office Action of January 27, 2006 claims 1 and 26-39 were rejected. Claims 35-36 have been cancelled. Claims 1, 28, and 31-33 have been amended and new claim 40 has been added. The support for the amendments and the new claims is presented in at least at paragraphs [0027], [0038], and [0052] – [0054] and in Figures 2 and 4-6. The Applicant respectfully submits that all of the pending claims are allowable in view of the above amendments and the following remarks.

Claim Rejections-35 U.S.C. § 102

The Recited Invention Is Not Obvious Over Campbell in View of Myrick

The Office Action rejected claims 1, 26, 28, 29, 31, 32, and 33-39 as obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 6,216,687 to Campbell et al. ("*Campbell*") in view of U.S. Patent No. 6,666,206 to Myrick ("*Myrick*"). The combination of *Campbell* and *Myrick* however, does not teach, suggest, or disclose all of the features of independent claims 1, 28, and 31-33. Moreover, each of these claims do not read upon the combination of *Campbell* and *Myrick*. Independent claims 1, 28, and 31-38 are therefore not obvious in view of *Campbell* and *Myrick*.

Campbell discloses a "gas-fueled heating appliance having a system for reducing the amount of undesirable combustion products released to the site in which the appliance is installed." Abstract. The combustion gases that are produced in the gas-fueled appliance are passed through a catalyst element that is "disposed in the flue or stack or virtually anywhere in the flow path of the products of combustion." Col. 6, lines 10-16. A fan draws air into a plenum and a portion of this air is transferred into the firebox where it fuels the combustion. The air leaving the firebox is filtered and treated by the catalyst element to convert carbon monoxide to carbon dioxide before being released back into the area in which the appliance is situated. Col. 7, line 55 – col. 8, line 19.

Furthermore, *Myrick* discloses an improved "fireplace insert used in a fireplace to surround a heat source." Abstract. The fireplace insert of *Myrick* is a stand alone product that is, as illustrated in Figures 1 and 2, placed within the confines of the combustion chamber. The insert further includes "an intake air filter 42 that is mounted to the inhaling end 24 of the conduit 22" and "an outtake air filter that is attached to the exhaling end 26 of the conduit 22."

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Col. 4, lines 20-23. As referenced by the Examiner, the filters "prevent undesired debris from passing through the conduit 22."

In both *Campbell* and *Myrick* the filters are directly exposed to the heat produced in the combustion chamber. In *Campbell* the filter is placed directly over the top of the combustion chamber, a position of extreme heat exposure. (The filter is at most separated from the combustion chamber by a screen. In the preferred embodiment the filter is held over the combustion chamber, without any separation, but a frame. See col. 7, lines 41-54 and FIG. 8a.) In *Myrick* the filters are placed at the beginning and end of the insert's conduit, directly exposing the filters to the flame produced by the fire. See FIG. 1. In neither case are the filters protected by the heat generated in the combustion chamber.

In contrast, the invention claimed in the present applications recites:

- "a filter disposed within the air passage below the combustion chamber to limit the exposure of the filter to heat generated in the combustion chamber." Claim 1.
- positioning a filter "within the plenum and spaced vertically below the combustion chamber to limit the exposure of the filter to heat generated in the combustion chamber." Claim 31.

Campbell and *Myrick*, alone or in combination, do not teach placement of the filter in a position within the plenum or air passage so as to protect the filter from the heat generated in the combustion chamber. It would furthermore not have been obvious to place the filter in the indicated position from *Campbell* and *Myrick*, alone or in combination. *Campbell* is specifically directed to filtering the air leaving the combustion chamber so as to filter carbon monoxide and airborne particulates that are released from the combustion process. *Myrick* is specifically directed to filter air entering and leaving the conduit by placing filters on the end of the intake and outtake channels such that the filters are directly exposed to the flames. *Campbell* and *Myrick*, alone or in combination, therefore don't teach, disclose, or suggest placing the filter below the combustion chamber to limit the exposure of the filter to heat generated in the combustion chamber. Claims 1 and 31 are therefore in condition for allowance.

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In addition, *Campbell* and *Myrick*, alone or in combination, do not teach the limitations presented in claims 28 or 32.

- Claim 28 recites disposing a “filter within the plenum, the filter disposed on a heat shield placed between the combustion chamber and the filter to protect the filter from heat generated in the combustion chamber.
- Claim 32 includes “a heat shield placed between the combustion chamber and the filter wherein the heat shield protects the filter from heat generated in the combustion chamber.”

Campbell and *Myrick*, alone or in combination, do not teach a heat shield that “protects the filter from heat generated in the combustion chamber.” Claims 28 and 32 therefore do not read upon *Campbell* or *Myrick*, alone or in combination.

Finally, claim 33 recites “a sterilization system disposed within the air passage” that “incapacitates airborne contaminants in the air.” Both *Campbell* and *Myrick*, alone or in combination, do not teach an apparatus to sterilize the air passing therethrough. As discussed in paragraph [0027], as opposed to filtration, which is to “capture, attract, bond with or otherwise remove airborne contaminants,” sterilization requires the apparatus to “kill, disinfect, or otherwise incapacitate airborne contaminants.” *Campbell* and *Myrick* do not teach, disclose, or suggest sterilization of the air passing through the apparatuses taught therein.

Independent claims 1, 28, and 31-33 are not obvious over *Campbell* in view of *Myrick*. Furthermore, the independent claims do not read upon any combination of *Campbell* and *Myrick*. Claims 1, 28 and 31-33 are therefore in condition for allowance for at least the above reasons.

In addition, dependent claims 26, 29, and 34-40 depend from one or more of the above independent claims and are therefore also allowable for at least these same reasons. Moreover, the rejection of claims 27 and 30 over *Campbell* in view of either U.S. Patent No. 5,656,242 and/or *Myrick* should also be withdrawn as these claims depend from allowable independent claims 1 and 28 and includes all of the limitations presented therein. Claims 27 and 30 are therefore allowable for at least those same reasons presented above. The Applicants therefore respectfully request the withdrawal of the rejection of these claims under 35 U.S.C. § 103(a).

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CONCLUSION


All pending claims are now in condition for allowance. A notice to that effect is respectfully requested.

PETITION FOR EXTENSION OF TIME

The Applicant herewith petitions the Commissioner to extend the time for reply to the Office Action dated January 27, 2006 for one (1) month, from April 27, 2006, to May 27, 2006. A credit card payment form in the amount of \$120.00 for a one-month extension of time is submitted herewith. No additional fee is believed to be necessary for the entry of this paper. Should any additional fee be required for entry of this paper, the Commissioner is authorized to charge the Faegre & Benson Deposit Account No. 06-0029 and in such event, is requested to notify us of the same.

Respectfully submitted,

FAEGRE & BENSON LLP

By: 
Scott A. Marks, #44,902
612/766-7820
Customer No.: 58506

Dated: May 26, 2006

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